PROC. ENTOMOL. SOC. WASH.
81(1), 1979, pp. 43–45

A NEW SPECIES OF *HYDROPTILA* FROM VIRGINIA (TRICHOPTERA: HYDROPTILIDAE)

Charles R. Parker and J. Reese Voshell, Jr.

Department of Entomology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.

Abstract.—The adult male of *Hydroptila* **anisoforficata,** new species, is described and figured. The new species is briefly compared to similar species in the genus.

During a recent survey of the aquatic insect fauna of Stony Creek, Virginia, an unknown species of Trichoptera was discovered. Subsequent examination of material collected previously near the Maury River produced additional specimens.

Hydroptila anisoforficata Parker and Voshell, NEW SPECIES

Adult male.—Length of forewing, 2.0–2.5 mm. Color of specimens in alcohol, brown. Seventh (and occasionally 6th) sternum with short, pointed apicomesal process. Eighth segment with numerous very long setae. General appearance similar to others in genus. *Genitalia:* Ninth segment retracted into 8th and part of 7th segments; prolonged posteriorly as a broad setose lobe that covers base of clasper. Tenth tergum (Fig. 1B) arises from 9th as a narrow, heavily sclerotized process that widens gradually before forking at about midlength; each fork twisted and bent (Fig. 1A), the right fork longer than the left and bending dorsad, the left bending ventrad. Clasper rectangular at base in lateral view; becomes slender and bladelike dorsomesally and curves mesoventrad, overlapping the other clasper before curving laterad and ending in a narrow apex (Fig. 1C); with several stout setae, more numerous apically. Mesal membranous lobe of 9th segment projects beneath 10th tergum, closely appressed to it; 2 setae project ventrad near apex; aedeagus exits between fork of 10th tergum and mesal lobe of 9th segment. Aedeagus (Fig. 1D) with enlarged base; slender tapering process arises just before midlength and spirals posteriad clockwise one revolution; constricted beyond midlength, ending apically as a slender finger; ejaculatory duct reticulated and looped at midlength.

Remarks.—*Hydroptila anisoforficata* appears to be similar to *H. waubesiana* Betten (1934) and allies because of the long, forked 10th tergum. The complete sclerotization of the 10th tergum is found in *H. eramosa*

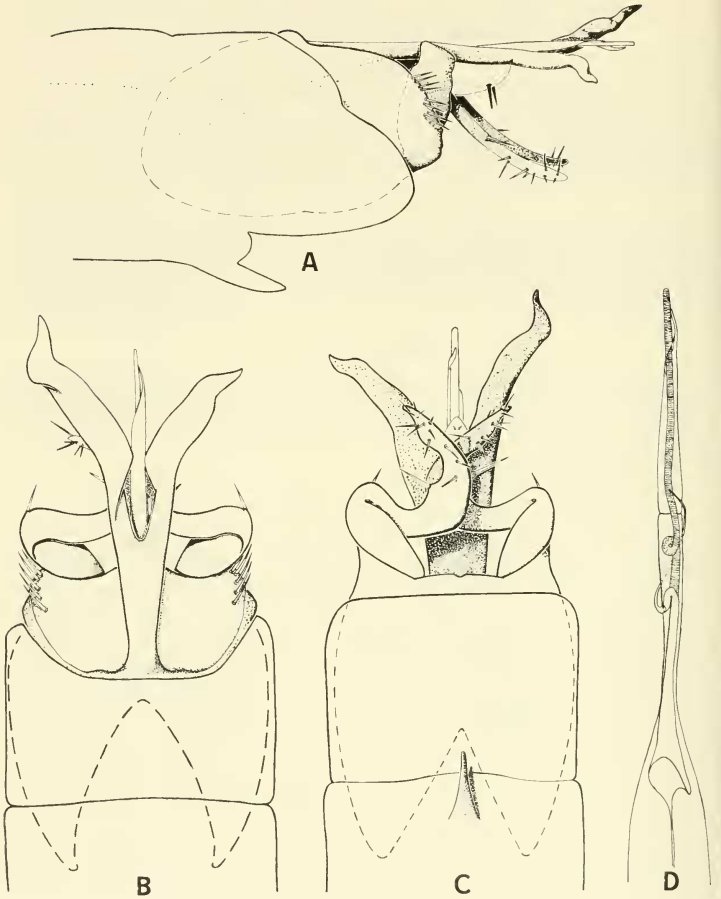

Fig. 1. *Hydroptila anisoforficata*, male genitalia. A, Lateral. B, Dorsal. C, Ventral. D, Aedeagus.

Harper (1973). The long, curved claspers are suggestive of *H. xera* Ross (1938), *H. berneri* Ross (1941), *H. salmo* Ross (1941), *H. tusculum* Ross (1947) and *H. melia* Ross (1938). However, *H. anisoforficata* is easily separated from other species by the asymmetrically forked 10th tergum and sinuate claspers which overlap midway and diverge apically.

Etymology.—The name is derived from *aniso-* (Greek, unequal) and *forficat-* (Latin, forked) and refers to the distinctive 10th tergum.

Types.—*Holotype*, ♂: Virginia, Giles Co., Stony Creek between Olean and Interior, 650–670 m elevation, black light trap, 13 July 1977, Sharon Johnson. *Paratypes*: Same data as holotype, 2 ♂. Virginia, Rockbridge Co., Maury River, Goshen Pass, 440–460 m elevation, black light trap, 8 September 1976, Walter Knausenberger, 4 ♂. Holotype and 2 paratypes deposited in the United States National Museum; remainder of paratypes deposited in the Royal Ontario Museum and the collection of the Department of Entomology, Virginia Polytechnic Institute and State University.

Acknowledgments

The authors thank Ms. Sharon Johnson for her diligent collecting during the summer of 1977 and Mr. Walter Knausenberger for donating specimens which he had previously collected. The assistance of Dr. Oliver S. Flint, Jr., Smithsonian Institution, and Dr. Glenn B. Wiggins, Royal Ontario Museum, in examining specimens and reviewing the manuscript is greatly appreciated.

Literature Cited

Betten, C. 1934. Zye caddis flies or Trichoptera of New York State. NY State Mus. Bull. 292:1–576.

Harper, P. P. 1973. *Hydroptila eramosa* a new caddis fly from Southern Ontario (Trichoptera, Hydroptilidae). Can. J. Zool. 51:393–394.

Ross, H. H. 1938. Descriptions of Nearctic caddis flies (Trichoptera) with special reference to the Illinois species. Bull. Ill. Nat. Hist. Surv. 21:101–183.

———. 1941. Descriptions and records of North American Trichoptera. Trans. Am. Entomol. Soc. 67:35–126.

———. 1947. Descriptions and records of North American Trichoptera, with synoptic notes. Trans. Am. Entomol. Soc. 73:125–168.